Sensitivity analysis confirmed the robustness of the model findings. **CONCLUSIONS:** This study shows that in Argentina, according to the model cost-effectiveness results, abatacept with MTX would be dominant treatment option compared to infliximab and tocilizumab, for patients with rheumatoid arthritis after an inadequate response to MTX.

PMS35

COST-EFFECTIVENESS ANALYSIS OF ETANERCEPT VERSUS AVAILABLE ANTI-TNF AND IL-6 BLOCKERS FOR TREATING RHEUMATOID ARTHRITIS IN HONDURAS

Lutz MA[1], Alonzo H[2], Bogantes JP[1], Cuesta G[3]
[1]*Pfizer Central America and the Caribbean, San Jose, Costa Rica,* [2]*Hospital de Especialidades del Seguro Social, Tegucigalpa, Honduras,* [3]*Pfizer Central America and the Caribbean, Escazú, San Jose, Costa Rica*

OBJECTIVES: Approximately 0.4% of the Latin American population over 16 years old is affected by Rheumatoid Arthritis (RA). RA has an important economic and social impact due to its chronic and progressive condition. The objective is to assess the cost-effectiveness (CE) of etanercept in the treatment for moderate to severe RA, among patients failing antirheumatic drugs, in comparison with the rest of anti-TNF and IL-6 blockers available in Honduras, from the health care payer's perspective**. METHODS:** A decision-tree model was implemented to compare the costs and effectiveness of etanercept (comparator, 50mg/week), adalimumab (40mg/15 days), infliximab (3-10mg/kg), rituximab (1000mg day 0 and 15, week 16-24) and tocilizumab (8mg/kg/month), all in combination with methotrexate, in the treatment of RA in adult population of Honduras. The effectiveness measures were: American College of Rheumatology (ACR) Response Criteria ACR<20 and ACR<70. Quality utilities were obtained from Health Assessment Questionnaire (HAQ). Local costs (2012 US$) were obtained from Official Social Security databases of Honduras. The outcomes were: total costs of RA (adverse events, exams and treatments) and QALYs gained. Univariate sensitivity analysis was performed. The time horizon was 2 years and the discount rate was 5% for costs and health outcomes. **RESULTS:** The total cost of etanercept was $US39,788.57, being $US1,149.43, $US3,131.82 $US6,622.29, and $US16,616.10 less expensive than tocilizumab, rituximab, adalimumab, and infliximab, respectively. Etanercept also gained the highest number of QALYs (1.5423) in comparison with adalimumab (1.5048), infliximab, (1.4299), rituximab (1.4674), and tocilizumab (1.4955). Cost-effectiveness analyses showed etanercept as the dominant strategy. Acceptability curves showed that at the willingness-to-pay level of US$8,000/QALY, etanercept was cost-effective with a 100% probability. PSA results support the robustness of these findings. **CONCLUSIONS:** This is the first CE study for RA developed in Honduran population. Etanercept appeared as the most cost-effective alternative for RA compared to other anti-TNF and IL-6 blockers.

PMS36

USING A VALIDATED ALGORITHM TO EVALUATE THE EFFECTIVENESS OF BIOLOGICS FOR RHEUMATOID ARTHRITIS IN A COMMERCIAL CLAIMS DATABASE

Curtis J[1], Schabert VF[2], Yeaw J[3], Korn J[4], Quach C[5], Harrison DJ[6], Yun H[1], Joseph G[6], Collier D[7]
[1]*University of Alabama at Birmingham, Birmingham, AL, USA,* [2]*IMS Health Consulting Group, Alexandria, VA, USA,* [3]*IMS Health, Alexandria, VA, USA,* [4]*IMS Health, Waltham, MA, USA,* [5]*University of North Carolina at Chapel Hill, Chapel Hill, NC, USA,* [6]*Amgen, Inc., Thousand Oaks, CA, USA,* [7]*Amgen, Thousand Oaks, CA, USA*

OBJECTIVES: Administrative claims contain detailed medication, diagnosis, and procedure data, but their lack of clinical outcomes for rheumatoid arthritis (RA) has limited their use in comparative effectiveness research. A validated claims-based algorithm uses adherence, dosing, and treatment modifications to estimate biologics' effectiveness (low disease or remission) for RA. The objective was to implement this algorithm in a US managed-care database and calculate the cost per algorithm-defined responder among biologics approved for moderate to severe RA (etanercept, adalimumab, infliximab, golimumab, abatacept). **METHODS:** Data were obtained from the IMS PharMetrics Plus™ Database, comprised of adjudicated medical and pharmaceutical claims for 150 million unique enrollees. The cohort included patients with RA aged 18-63, initiating treatment between January 2007 and December 2010, without RA biologics 6 months before first treatment, and enrolled between 6 months before and 12 months after first biologic. Other TNF responsive conditions were excluded. The algorithm defines lack of effectiveness as: medication possession ratio < 80% (or fewer infusions/injections than specified on US label), increase in biologic dose or frequency interval, switching biologics, adding new non-biologic Disease Modifying Anti-Rheumatic Drugs, glucocorticoid use, initiation or increase of glucocorticoid dose, or > 1 parenteral or intra-articular injection during the follow-up period. Drug and administration costs were obtained from allowed amounts on claims. **RESULTS:** The cohort included 16,011 patients, mean age 49.3, 76.7% female. Algorithm effectiveness (low disease or remission) criteria were met in 31.0% of etanercept (n=7,247), 28.6% of adalimumab (n=4,991), 20.2% of infliximab (n=2,352), 28.6% of abatacept (n=1,160), and 27.2% of golimumab (n=261) patients in the first 12 months of treatment. Mean first year cost per responder was lowest for etanercept ($50,141), followed by golimumab ($53,386), adalimumab ($56,941), abatacept ($73,516), and infliximab ($114,089). **CONCLUSIONS:** Etanercept had the highest estimated effectiveness and lowest cost per responder among first-line RA biologics using a new, validated claims-based algorithm.

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COST-EFFECTIVENESS ANALYSIS OF ETANERCEPT VERSUS AVAILABLE ANTI-TNF AND IL-6 BLOCKERS FOR TREATING RHEUMATOID ARTHRITIS IN COSTA RICA

Lutz MA[1], Bogantes JP[1], Cuesta G[2], Saenz R[3]
[1]*Pfizer Central America and the Caribbean, San Jose, Costa Rica,* [2]*Pfizer Central America and the Caribbean, Escazú, San Jose, Costa Rica,* [3]*Hospital Dr. RA Calderón Guardia, San Jose, Costa Rica*

OBJECTIVES: Rheumatoid arthritis (RA) affects approximately 40,000 people in Costa Rica. It is associated with a significant effect on the patients' quality of life and costs to society. The aim is to assess the cost-effectiveness of etanercept in the treatment for moderate to severe RA, among patients failing previous antirheumatic therapy (DMARDS), in comparison with the rest of anti-TNF and IL-6 blockers products in Costa Rica, from the health care payer's perspective. **METHODS:** A decision tree model was used to compare the costs and effectiveness of the alternatives, all in combination with methotrexate, in the treatment of RA in adult population of Costa Rica. The alternatives included were: etanercept (comparator, 50mg/week), adalimumab (40mg/15 days), infliximab (3-10mg/kg), rituximab (1000mg day 0 and 15, week 16-24) and tocilizumab (8mg/kg/month). The effectiveness measures were: American College of Rheumatology (ACR) Response Criteria ACR<20 and ACR<70. Quality utilities were obtained from Health Assessment Questionnaire (HAQ). Local costs (2012 US$) were obtained from Costa Rica Social Security databases. The outcomes were expressed as total costs of RA and quality-adjusted life years (QALYs) gained. Univariate sensitivity analysis was performed. The time horizon was two years and the discount rate was 5% for costs and health outcomes. **RESULTS:** Results showed that etanercept gained the highest number of QALYs (1.5423) in comparison with adalimumab (1.5048), infliximab, (1.4299), rituximab (1.4674), and tocilizumab (1.4955). Etanercept appeared as the least expensive option (US$38,836.32) while infliximab resulted as the most expensive option (US$57,237.22). Cost-effectiveness analyses exhibited etanercept as the dominant strategy. Acceptability curves showed that at the willingness-to-pay level of US$10,000/QALY, Etanercept was cost-effective with a 100% probability. Probability sensitivity analysis results support the robustness of these findings. **CONCLUSIONS:** Etanercept is the most cost-effective alternative for treating RA among other anti-TNF and IL-6 blockers.

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COST-EFFECTIVENESS ANALYSIS OF ETANERCEPT VERSUS AVAILABLE ANTI-TNF AND IL-6 BLOCKERS FOR TREATING RHEUMATOID ARTHRITIS IN EL SALVADOR

Lutz MA[1], Zelaya R[2], Bogantes JP[1], Cuesta G[3]
[1]*Pfizer Central America and the Caribbean, San Jose, Costa Rica,* [2]*El Salvador Social Security, San Salvador, El Salvador,* [3]*Pfizer Central America and the Caribbean, Escazú, San Jose, Costa Rica*

OBJECTIVES: Rheumatoid arthritis (RA) affects approximately 60.000 people in El Salvador. RA has a significant effect on quality of life of patients and it is associated with high costs to society. The objective is to assess the cost-effectiveness (CE) of etanercept in the treatment for moderate to severe RA, among patients failing previous antirheumatic drugs (DMARDs), in comparison with the rest of anti-TNF and IL-6 blockers products available in El Salvador, from the health care payer's perspective. **METHODS:** In order to compare the costs and effectiveness of the alternatives included, a decision-tree was utilized. The alternatives for treating RA were: etanercept (comparator, 50mg/week), adalimumab (40mg/15 days), infliximab (3-10mg/kg), rituximab (1000mg day 0 and 15, week 16-24) and tocilizumab (8mg/kg/month), all in combination with methotrexate. The effectiveness measures were: American College of Rheumatology (ACR) Response Criteria ACR<20 and ACR<70. Quality utilities were obtained from Health Assessment Questionnaire (HAQ). Local costs (2012 US$) were obtained from official databases from the Social Security of El Salvador. The outcomes were: total costs of RA and quality-adjusted life years (QALYs) gained. Univariate sensitivity analysis was performed. The time horizon was 1 year. **RESULTS:** Etanercept was the least expensive option ($US19,959.82) while infliximab was the most expensive option (US$25,262.66). The total cost for Adalimumab was $US21,236.14 and $21,301.85 for Rituximab. Etanercept gained the highest number of QALYs (0.79) compared to adalimumab (0.77), infliximab, (0.73), and rituximab (0.75). In the CE analyses, etanercept appeared as the dominant strategy. Acceptability curves showed that at the willingness-to-pay level of US$15,300/QALY, etanercept was cost effective with a 100% probability. Probability sensitivity analysis results support the robustness of these findings. **CONCLUSIONS:** Etanercept is the least expensive and most effective option for treating RA in El Salvador. Etanercept is cost-effective option according to <3 GDP per capita ($7,600; 2011) threshold of El Salvador.

PMS39

COST-EFFECTIVENESS AND COST-UTILITY ANALYSES OF FIXED-DOSE COMBINATION OF NAPROXEN AND ESOMEPRAZOLE MAGNESIUM FOR OSTEOARTHRITIS PATIENTS AT RISK OF DEVELOPING GASTRIC OR DUODENAL ULCER

Polanco AC[1], Ascencio ISI[1], Pizarro M[2], Soto H[3], Salazar A[3], Pozo L[4]
[1]*AstraZeneca, México, D. F., Mexico,* [2]*Hospital Infantil de Mexico Federico Gomez, Mexico City, Mexico,* [3]*Iteliness Consulting, D. F., Mexico,* [4]*Iteliness Consulting, Mexico City, Mexico*

Non-steroidal anti-inflammatory drugs (NSAIDs) are prescribed for osteoarthritis (OA). All NSAIDs treatment carries gastrointestinal (GI) toxicity risk, ranging from mild dyspepsia to GI hemorrhage and perforation. Treatment with gastric mucosa protectors like potassium pump inhibitors (PPI) had been associated with long NSAID treatment to reduce GI toxicity. **OBJECTIVES:** To evaluate the cost-effectiveness and cost-utility of fixed-dose-combination (FDC) of naproxen/esomeprazole, NSAIDs or cyclooxygenase-2 inhibitors' (COX-2) in chronic users at risk of gastropathy. **METHODS:** A Markov model was developed with a 3-month cycle during 1 year horizon. Health states represent adverse events (AE) GI and cardiovascular (CV); the risk of experiencing an AE and moving between different health states was taken from published clinical research. The model estimates the net impact of the treatment alternatives